

LESSON 4B—NARRATIVE: WHAT ANIMALS DID ANCIENT PEOPLE EAT, AND HOW DID THEY HUNT THEIR PREY?

Ancient people hunted prehistoric and modern-day bison, elk, deer, and other animals with a variety of techniques.

Today many Montana families choose to hunt big game and game birds for food. Ancient Montanans did not have a choice. They depended on the animals they hunted for protein, a nutrient all humans need to maintain health. For men and boys, hunting was a constant, daily activity. Some women also hunted.

When people first arrived in Montana, at least twelve thousand years ago, they hunted the Ice Age **bison** (or buffalo), **mastodons**, and **woolly mammoths**. These huge animals are now extinct. Ancient people hunted and killed these large animals with hand-held **spears**. They chased many into gullies and spring bottoms, where the great beasts became mired in mud and muck. Then prehistoric people—working as a group—were able to kill their giant prey in these confined spaces. Hunting this way was very dangerous because the hunters had to get in close proximity to their prey in order to thrust their spears into vulnerable areas like the lung cavity. These hunts involved much planning, preparation, and primitive magic.

About nine thousand years ago, prehistoric hunters began using the **atlatl**, or spear thrower, to propel a long, slender, stone-tipped dart. The atlatl enabled hunters to distance themselves from prey. By this time, the giant Ice Age mammals had disappeared. Instead large bison, deer, elk,

and other game became the primary prey for prehistoric hunters. These hunters used sophisticated hunting techniques to stampede and corral bison into natural traps and gullies.

Prehistoric groups began to use the **bow and arrow** about two thousand years ago. This new weapon increased the distance a hunter could shoot accurately. The stone projectile points on arrows were much smaller than those used with the atlatl or the hand-held spear. Bow-and-arrow hunters were the avid and sophisticated bison hunters that people imagine roaming the plains of Montana. There were few or no bison west of the **Continental Divide**, but the prehistoric people who lived there made annual trips eastward to hunt bison. These trips became especially popular when the use of the horse became widespread about 250 years ago.

In western Montana, ancient people hunted elk, deer, moose, and sheep, and they fished the many streams. On the east side of the Continental Divide, ancient people primarily hunted bison. They also hunted pronghorn antelope, elk, deer, sheep, rabbits, porcupine, beaver, marmots, and birds. Remains of these animals are found in many prehistoric archaeological sites like Pictograph Cave near Billings.

Today the **short grass plains** of eastern Montana may look devoid of natural plant and animal life. That is

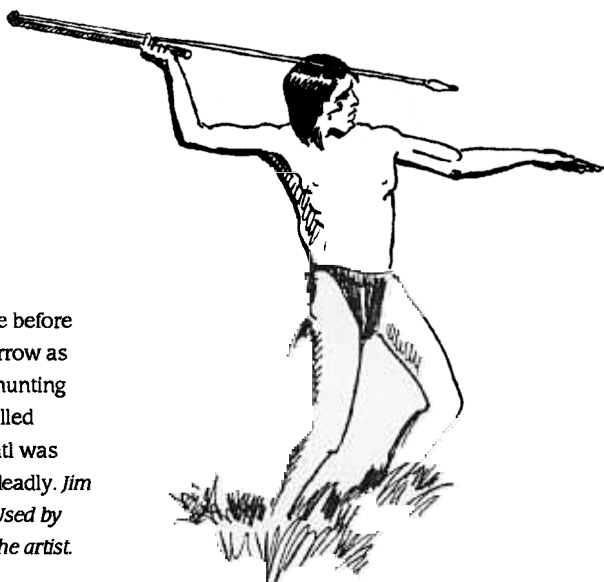
not true, but it was even less the case in prehistoric times. The grasses and other **forbs** (herb-like plants) that grew on these plains contained protein that enabled animals like bison to build up mass. This extra weight then helped them survive the cold winter months. As a result, during ancient times, immense herds of bison and other large game made their homes on the plains. This gave Montana's prehistoric people a tremendous supply of meat on the hoof!

For over eleven thousand years, large game, especially bison, was the main source of subsistence for many prehistoric people of Montana. These hunters had to be clever and successful in their endeavors to hunt these large animals. Young hunters served long apprenticeships with their elders, absorbing knowledge and experience. This enabled them to almost instinctively know what hunting strategy to use in any given situation. Before 1700, they did not have horses, and so they had to devise ingenious methods to hunt these large

game. They used **drive lines**, or lines of rock piles, to funnel animals into areas where other hunters waited to ambush and kill them. They also used drive lanes—defined by two converging lines—to lead bison to **buffalo jumps**. A **pishkin**—the name the Blackfeet used for a buffalo jump—was a steep cliff over which hunters drove bison to their deaths. If an animal did not die, hunters waiting at the foot of the cliff killed it. Native Americans used buffalo jumps heavily as a hunting method between 2,500 and 1,200 years ago.

Ancient hunters also built sophisticated **wooden corrals** to capture bison, deer, mountain sheep, and antelope. These ancient corrals were sturdily built and could hold as many as ten to twenty bison. Some ancient corrals had bison skulls around them; prehistoric hunters believed that these skulls invoked magical spirits that helped lure the animals inside. A shaman, or spiritual leader, would sing and perform rituals near the corrals to aid the hunters. Hunters also used **natural traps**, formed by ravines or draws or even sand dunes, to capture their prey. They herded animals into these natural traps where they could surround and kill them.

Once they had killed the animals, prehistoric groups immediately butchered them. Otherwise, the meat would spoil in the hot sun, and the smell would attract wolves, grizzly bears, and other predators. These people had no concept of refrigeration. They used sharp stone flakes, stone knives, and bone tools to do the butchering. The butchering process was grueling work. The average

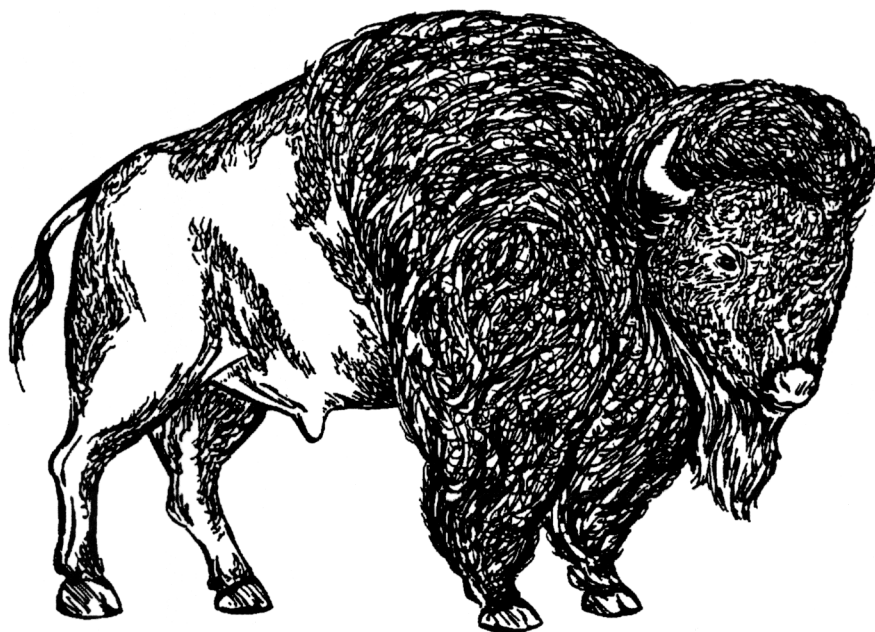


The atlatl came before the bow and arrow as the dominant hunting weapon. In skilled hands, the atlatl was accurate and deadly. *Jim Knight, artist. Used by permission of the artist.*

carcass of a female bison provided 180 kilograms of meat. After field butchering, the people hauled pieces of the carcass back to camp. Sometimes, they left excess meat at the kill site. Back at camp, they cut the meat in strips and hung it on willow frames to dry. The women dressed the hides, which were then cleaned and tanned and used for tipi covers, carrying bags, clothing, and moccasins.

Animals provided a main source of food for the subsistence of ancient people. Large animals like bison provided quantities of meat for the long Montana winter. Hunting could be dangerous, and often hunters were wounded, or even killed, in the process.

The public can visit some buffalo jump sites in Montana. These include the Bootlegger Site near Chester, the Madison Buffalo Jump near Three Forks, Ulm Pishkin near Great Falls, and the Wahkpa Chu'gn Site near Havre.



For thousands of years, the buffalo provided food, shelter, and spiritual guidance to Montana's ancient people. The buffalo remains a sacred animal to many Indian people today. *Courtesy Montana Historical Society.*

LESSON 4B—VOCABULARY: WHAT ANIMALS DID ANCIENT PEOPLE EAT, AND HOW DID THEY HUNT THEIR PREY?

atlatl _____

bison _____

bow and arrow _____

buffalo jumps _____

Continental Divide _____

drive line _____

forbs _____

mastodon _____

natural traps _____

pishkin _____

short grass plains _____

spears _____

wooden corrals _____

woolly mammoth _____

LESSON 4B—ARCH ACTIVITY: STONE TOOL MEASURING

Grades: 3–8

Time: 45 minutes

Content Area: math, science, and writing

Who: small groups and individuals

Materials:

paper and pencils

rulers (centimeters)

projectile points from Technology

Tool Kit (or pictures of points if kit
is unavailable)

Artifact Data Sheet (attached)

OBJECTIVE AND OUTCOME

- Students will learn how archaeologists use measurement and math skills to study stone tool hunting technology.
- Students will use metric system to measure and record data to describe artifacts.
- Students will identify point groups for spear, atlatl, or bow and arrow.

ACTIVITY

1. Tell students they will record measurements for three different projectile point groups (A, B, and C). They will write down the number of each artifact in the group and then write its length and width on an Artifact Data Sheet. Students will be asked to identify from the measurements which points they think were used as spear, atlatl, or arrow points.

2. Divide the class into three groups. Give each group one projectile point group; each point group should include 5–10 artifacts.

3. Have each student measure—using a ruler—the maximum length and width of each artifact to the nearest millimeter. Have each student record the information for each artifact in the group on the attached Artifact Data Sheet. (They will each need three Data Sheets, one for each artifact group.) Give each group about 10 minutes to measure their artifacts, and then ask the groups to trade artifacts.

4. Once students are finished, ask Grades 3–5 to figure out the size range for each group of artifacts. What was the longest/shortest point in each group, etc.? Ask Grades 6–8 to calculate averages using the mean length and width of each projectile point group.

5. Ask students to identify which point groups were probably used for spears (largest), with atlatls (medium-sized points) and with bow and arrow (smallest points). Are there any points that might be used in two ways (overlapping range)?

6. Have students use their measurements to create a key identifying the different kinds of points.

7. Have students discuss other characteristics that distinguish the different groups (e.g. notches vs. no notches).

EXTENSIONS

3–5:

- Research vocabulary.

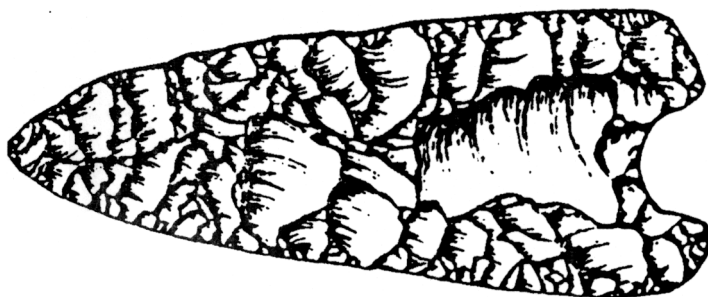
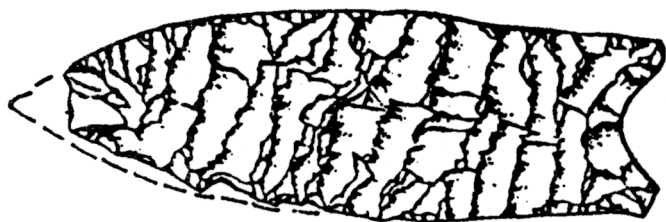
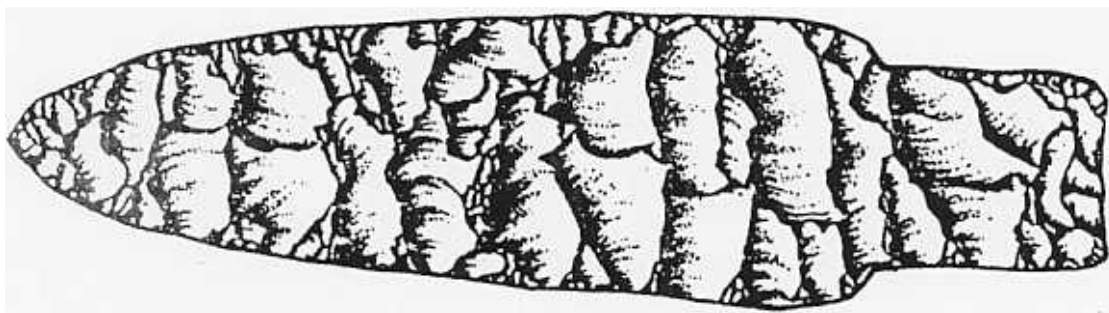
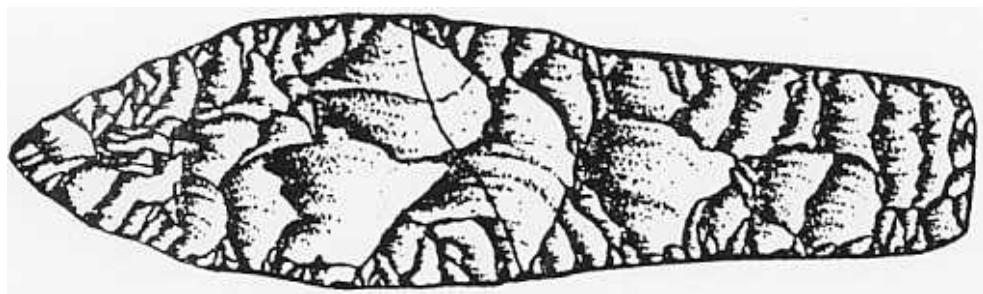
See: Lesson 4B—Vocabulary.

- Have each group measure the height of each person in their group and calculate the range of heights for the group.

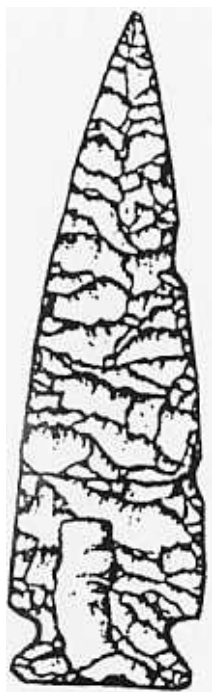
6–8:

- Have each group measure the height and head size (diameter) of each person in the group. Have the group calculate the average group height and head size, using the mean and the median. Does the mean or median give the best average in this case?

LESSON 4B—ARCH ACTIVITY: STONE TOOL MEASURING
GROUP A



LESSON 4B—ARCH ACTIVITY: STONE TOOL MEASURING
GROUP B



LESSON 4B—ARCH ACTIVITY: STONE TOOL MEASURING
GROUP C



LESSON 4B—ARCH ACTIVITY: STONE TOOL MEASURING ARTIFACT DATA SHEET

Name: _____

Artifact Group =

Artifact Number

Length (mm/cm)

Width (mm/cm)

[illegible]

Stone Tool Mean

Length

Width

Stone Tool Range

Length

to

Width

to